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10/591,198

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Dieter Groezinger

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LIN, KUANG Y

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DIETER GROEZINGER

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Appeal 2010-005503  
Application 10/591,198  
Technology Center 1700

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Before CHUNG K. PAK, CHARLES F. WARREN, and  
CATHERINE Q. TIMM, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON REHEARING

Pursuant to 37 C.F.R. § 41.52(a)(1), Appellant requests rehearing of our Decision of September 7, 2011 (“Decision”), affirming the Examiner’s decision rejecting claims 1, 2, and 4 through 7 under 35 U.S.C. § 103(a) as unpatentable over the prior art of record. (*See* Request of Reconsideration (“Request”) filed November 7, 2011, 1-4.)

On rehearing, Appellant argues that the Board misapprehended or overlooked the fact that there is no “proper reason” to employ graphite in the core forming composition containing a water soluble salt suggested by Anderko and

Melling or Beyakov. *Id.* However, we are not persuaded that the Decision contains any reversible error.

As correctly found by us at pages 4, 5, and 6 of the Decision, forming a core useful for casting processes from foundry sand and a binder or a water soluble salt and a binder, including the claimed particular binder, in a compact or press molding machine was known. Although Halpern teaches using graphite in the context of forming a core from foundry sand and a binder as indicated by Appellant, the use of a parting agent, such as graphite, to minimize the adverse effect of the adhesion promoting binder during the formation of the foundry sand core or during its use in the casting process, i.e., to prevent the binder and some sand particles sticking to the surface of the molding machine or the casting machine due to the binder on the outer surface of the core, taught by Halpern is reasonably expected to be similarly applicable to the adhesion promoting binder used in the formation of the water soluble core suggested by Anderko and Melling or Beyakov as indicated at pages 7 and 8 of the Decision. It follows that we made no reversible error in determining that one of ordinary skill in the art would have been led to employ a parting agent, such as graphite, in the core forming composition containing the claimed water-soluble salt and binder suggested by Anderko and Melling or Beyakov, with a reasonable expectation of successfully minimizing any deleterious adhesion effect on the surface of the casting or molding devices caused by the adhesion promoting binder. (*See* Decision 7-8.)

In any event, as also correctly found by us at pages 5 and 7 of the Decision, Halpern also teaches that the addition of a parting agent (lubricant) to a core forming composition contributes to the formation of a product, i.e., a core, virtually dust-free in its Example 1. Although Halpern's Example 1 employs a parting agent different from graphite, it does not indicate that the advantage of obtaining

virtually dust-free core or product is not applicable when the other parting agents (lubricants), including graphite, listed therein are employed. In fact, Halpern teaches that the parting agent used in Example 1 and its other parting agents, including graphite, are interchangeably employed in forming a core. (*See* col. 2, ll. 33-35 and col. 4, ll. 43-48, Example 6.) While Halpern again teaches this advantage in the context of forming a core made of foundry sand and a binder, one of ordinary skill in the art would have reasonably expected that the same advantage is useful in forming a core made of a water soluble salt and a binder since both the cores are made by compact or press molding fine powder or particles (with the unbounded powder constituting dust). Thus, even if no deleterious adhesion effect discussed *supra* is expected from using a binder in forming a core made of a water-soluble salt, the Board made no reversible error in determining that one of ordinary skill in the art would have been led to employ a parting agent, such as graphite, in the core forming composition containing the claimed water-soluble salt and binder particles suggested by Anderko and Melling or Beyakov, with a reasonable expectation of successfully minimizing the formation of dust associated with compact or pressing molding fine powder or particles.

Finally, as stated at pages 7 and 8 of the Decision, any of the above reasons for employing a parting agent, such as graphite, in the in the core forming composition containing the claimed water-soluble salt and binder particles suggested by Anderko and Melling or Beyakov is compelling even if there is no reasonable expectation, “since any [undesired] adhesion or dusting problem associated with using the water soluble salt and binder particles suggested by Anderko and Melling or Beyakov in casting processes and/or core forming processes, which warrants the parting agent taught by Halpern, would have been readily noticeable by one of ordinary skill in the art via simple observation.”

*Compare In re Ludwig*, 353 F.2d 241, 244 (CCPA 1965) (Discovery of a problem readily noticeable by one of ordinary skill in the art does not impart patentability.) On this record, Appellant has not demonstrated that one of ordinary skill in the art would not have reasonably expected or would not have noticed by simple observation any undesired adhesion or dusting problem in using the water soluble salt and binder particles suggested by Anderko and Melling or Beyakov.

In view of the foregoing, we have granted Appellant's request for rehearing to the extent that we have reconsidered our Decision, but we deny Appellant's request to make any change therein.

DENIED

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